

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) A data processing apparatus for selectively receiving information data from a plurality of types of input devices, comprising:
 - input interface means functioning as an interface with said plurality of types of input devices;
 - input common processing means for performing processing, commonly to said plurality of types of input devices, on the information data received from said plurality of types of input devices via said input interface means; and
 - input variable processing means for performing processing, variably according to the type of input device selected from said plurality of types of input devices, on the information data received from said plurality of types of input devices via said input interface means,
 - ~~wherein first selected devices among the plurality of types of input devices perform similar processes as the input common processing means, and~~
 - ~~wherein second selected devices among the plurality of types of input devices perform similar processes as the input variable processing means~~
 - wherein said input common processing means and said input variable processing means are simultaneously performed using prediction coefficients learned for performing the input common processing means and the input variable processing means at one time.

2. (Original) A data processing apparatus according to claim 1, further comprising input device detection means for detecting the type of input device from which the information data is received via said input interface means, wherein said input common processing means and said input variable processing means perform the processing based on a detection result obtained from said input device detection means.

3. (Original) A data processing apparatus according to claim 1, wherein said input interface means functions as an interface with each of at least two of said input devices.

4. (Original) A data processing apparatus according to claim 1, further comprising:

output interface means functioning as an interface with a plurality of types of output devices;

output common processing means for performing processing, commonly to said plurality of types of output devices, on information data to be supplied to said plurality of types of output devices via said output interface means; and

output variable processing means for performing processing, variably according to the type of output device selected from said plurality of types of output devices, on the information data supplied to said plurality of types of output devices via said output interface means.

5. (Original) A data processing apparatus according to claim 4, further comprising output device detection means for detecting the type of output device to which the

information data is to be supplied via said output interface means, wherein said output common processing means and said output variable processing means perform the processing based on a detection result obtained from said output device detection means.

6. (Original) A data processing apparatus according to claim 4, wherein said output interface means functions as an interface with each of at least two of said output devices.

7. (Original) A data processing apparatus according to claim 4, wherein said input interface means and said output interface means are integrated into a single interface.

8. (Original) A data processing apparatus according to claim 1, further comprising:

storage interface means functioning as an interface with a plurality of types of storage devices;

storage common processing means for performing processing, commonly to said plurality of types of storage devices, on information data received from said plurality of types of storage devices via said storage interface means or information data supplied to said plurality of storage devices via said storage interface means; and

storage variable processing means for performing processing, variably according to the type of storage device selected from said plurality of types of storage devices, on the information data received from said plurality of types of storage devices via said storage interface means or the information data supplied to said plurality of types of storage devices via said storage interface means.

9. (Original) A data processing apparatus according to claim 8, further comprising storage device detection means for detecting the type of storage device from or to which the information data is received or supplied via said storage interface means, wherein said storage common processing means and said storage variable processing means perform the processing based on a detection result obtained from said storage device detection means.

10. (Original) A data processing apparatus according to claim 8, wherein said storage interface means functions as an interface with each of at least two of said storage devices.

11. (Original) A data processing apparatus according to claim 8, wherein said input interface means and said storage interface means are integrated into one interface.

12. (Original) A data processing apparatus according to claim 4, further comprising:

storage interface means functioning as an interface with a plurality of types of storage devices;

storage common processing means for performing processing, commonly to said plurality of types of storage devices, on information data received from said plurality of types of storage devices via said storage interface means or information data supplied to said plurality of storage devices via said storage interface means; and

storage variable processing means for performing processing, variably according to the type of storage device selected from said plurality of types of storage devices, on the information data received from said plurality of types of storage devices via said storage interface means or the information data supplied to said plurality of types of storage devices via said storage interface means.

13. (Original) A data processing apparatus according to claim 12, wherein said input interface means, said output interface means, and said storage interface means are integrated into a single interface.

14. (Currently Amended) A data processing method for use in a data processing apparatus for selectively receiving information data from a plurality of types of input devices, comprising:

an input common processing step of performing processing, commonly to said plurality of types of input devices, on the information data received from said plurality of types of input devices via input interface means functioning as an interface with said plurality of types of input devices; and

an input variable processing step of performing processing, variably according to the input device selected from said plurality of types of input devices, on the information data received from said plurality of types of input devices via said input interface means,

~~wherein first selected devices among the plurality of types of input devices perform similar processes as the input common processing step, and~~

~~wherein second selected devices among the plurality of types of input devices
perform similar processes as the input variable processing step~~

wherein said input common processing step and said input variable processing
step are simultaneously performed using prediction coefficients learned for performing the input
common processing step and the input variable processing step at one time.

15. (Currently Amended) A recording medium for storing a program which
causes a computer to perform data processing for processing information data received from a
plurality of types of input devices, said program comprising:

an input common processing step of performing processing, commonly to said
plurality of types of input devices, on the information data received from said plurality of types
of input devices via input interface means functioning as an interface with said plurality of types
of input devices; and

an input variable processing step of performing processing, variably according to
the input device selected from said plurality of types of input devices, on the information data
received from said plurality of types of input devices via said input interface means,

~~wherein first selected devices among the plurality of types of input devices
perform similar processes as the input common processing step, and~~

~~wherein second selected devices among the plurality of types of input devices
perform similar processes as the input variable processing step~~

wherein said input common processing step and said input variable processing
step are simultaneously performed using prediction coefficients learned for performing the input
common processing step and the input variable processing step at one time.

16. (Currently Amended) A data processing apparatus for selectively supplying information data to a plurality of types of output devices, comprising:

output interface means functioning as an interface with said plurality of types of output devices;

output common processing means for performing processing, commonly to said plurality of types of output devices, on the information data to be supplied to said plurality of types of output devices via said output interface means; and

output variable processing means for performing processing, variably according to the type of output device selected from said plurality of types of output devices, on the information data to be supplied to said plurality of types of output devices via said output interface means,

~~wherein first selected devices among the plurality of types of output devices perform similar processes as the output common processing means, and~~

~~wherein second selected devices among the plurality of types of output devices perform similar processes as the output variable processing means~~

wherein said output common processing means and said output variable processing means are simultaneously performed using prediction coefficients learned for performing the output common processing means and the output variable processing means at one time.

17. (Original) A data processing apparatus according to claim 16, further comprising output device detection means for detecting the type of output device to which the

information data is to be supplied via said output interface means, wherein said output common processing means and said output variable processing means perform the processing based on a detection result obtained from said output device detection means.

18. (Original) A data processing apparatus according to claim 16, wherein said output interface means functions as an interface with each of at least two of said output devices.

19. (Original) A data processing apparatus according to claim 16, further comprising:

storage interface means functioning as an interface with a plurality of types of storage devices;

storage common processing means for performing processing, commonly to said plurality of types of storage devices, on information data received from said plurality of types of storage devices via said storage interface means or information data supplied to said plurality of storage devices via said storage interface means; and

storage variable processing means for performing processing, variably according to the type of storage device selected from said plurality of types of storage devices, on the information data received from said plurality of types of storage devices via said storage interface means or the information data supplied to said plurality of types of storage devices via said storage interface means.

20. (Original) A data processing apparatus according to claim 19, further comprising storage device detection means for detecting the type of storage device from or to which the information data is received or supplied via said storage interface means, wherein said storage common processing means and said storage variable processing means perform the processing based on a detection result obtained from said storage device detection means.

21. (Original) A data processing apparatus according to claim 19, wherein said storage interface means functions as an interface with each of at least two of said storage devices.

22. (Original) A data processing apparatus according to claim 19, wherein said output interface means and said storage interface means are integrated into a single interface.

23. (Currently Amended) A data processing method for use in a data processing apparatus for selectively supplying information data to a plurality of types of output devices, comprising:

an output common processing step of performing processing, commonly to said plurality of output devices, on the information data to be supplied to said plurality of types of output devices via output interface means functioning as an interface with said plurality of types of output devices; and

an output variable processing step of performing processing, variably according to the type of output device selected from said plurality of types of output devices, on the

information data to be supplied to said plurality of types of output devices via said output interface means,

~~wherein first selected devices among the plurality of types of output devices perform similar processes as the output common processing step, and~~

~~wherein second selected devices among the plurality of types of output devices perform similar processes as the output variable processing step~~

wherein said output common processing step and said output variable processing step are simultaneously performed using prediction coefficients learned for performing the output common processing step and the output variable processing step at one time.

24. (Currently Amended) A recording medium for storing a program which causes a computer to perform data processing for processing information data to be supplied to a plurality of types of output devices, said program comprising:

an output common processing step of performing processing, commonly to said plurality of output devices, on the information data to be supplied to said plurality of types of output devices via output interface means functioning as an interface with said plurality of types of output devices; and

an output variable processing step of performing processing, variably according to the type of output device selected from said plurality of types of output devices, on the information data to be supplied to said plurality of types of output devices via said output interface means,

~~wherein first selected devices among the plurality of types of output devices perform similar processes as the output common processing step, and~~

~~wherein second selected devices among the plurality of types of output devices perform similar processes as the output variable processing step~~

wherein said output common processing step and said output variable processing step are simultaneously performed using prediction coefficients learned for performing the output common processing step and the output variable processing step at one time.

25. (Currently Amended) A data processing apparatus for selectively receiving and supplying information data from and to a plurality of types of storage devices, comprising:

storage interface means functioning as an interface with a plurality of types of storage devices;

storage common processing means for performing processing, commonly to said plurality of types of storage devices, on the information data received from said plurality of types of storage devices via said storage interface means or the information data supplied to said plurality of storage devices via said storage interface means; and

storage variable processing means for performing processing, variably according to the type of storage device selected from said plurality of types of storage devices, on the information data received from said plurality of types of storage devices via said storage interface means or information data supplied to said plurality of types of storage devices via said storage interface means,

~~wherein first selected devices among the plurality of types of storage devices perform similar processes as the storage common processing means, and~~

~~wherein second selected devices among the plurality of types of storage devices perform similar processes as the storage variable processing means~~

wherein said storage common processing means and said storage variable processing means are simultaneously performed using prediction coefficients learned for performing the storage common processing means and the storage variable processing means at one time.

26. (Original) A data processing apparatus according to claim 25, further comprising storage device detection means for detecting the type of storage device from or to which the information data is received or supplied via said storage interface means, wherein said storage common processing means and said storage variable processing means perform the processing based on a detection result obtained from said storage device detection means.

27. (Original) A data processing apparatus according to claim 25, wherein said storage interface means functions as an interface with each of at least two of said storage devices.

28. (Currently Amended) A data processing method for use in a data processing apparatus for selectively receiving and supplying information data from and to a plurality of types of storage devices, comprising:

a storage common processing step of performing processing, commonly to said plurality of types of storage devices, on the information data to be supplied to said plurality of types of storage devices via storage interface means functioning as an interface with said

plurality of types of storage devices, or on the information data received from said plurality of types of storage devices via said storage interface means; and

a storage variable processing step of performing processing, variably according to the type of storage device selected from said plurality of types of storage devices, on the information data to be supplied to said plurality of types of storage devices from said storage interface means, or on the information data received from said plurality of types of storage devices via said storage interface means,

~~wherein first selected devices among the plurality of types of storage devices perform similar processes as the storage common processing step, and~~

~~wherein second selected devices among the plurality of types of storage devices perform similar processes as the storage variable processing step~~

wherein said storage common processing step and said storage variable processing step are simultaneously performed using prediction coefficients learned for performing the storage common processing step and the storage variable processing step at one time.

29. (Currently Amended) A recording medium for storing a program which causes a computer to perform data processing for processing information data received and supplied from and to a plurality of types of storage devices, said program comprising:

a storage common processing step of performing processing, commonly to said plurality of types of storage devices, on the information data to be supplied to said plurality of types of storage devices via storage interface means functioning as an interface with said

plurality of types of storage devices, or on the information data received from said plurality of types of storage devices via said storage interface means; and

a storage variable processing step of performing processing, variably according to the type of storage device selected from said plurality of types of storage devices, on the information data to be supplied to said plurality of types of storage devices from said storage interface means, or on the information data received from said plurality of types of storage devices via said storage interface means,

~~wherein first selected devices among the plurality of types of storage devices perform similar processes as the storage common processing step, and~~

~~wherein second selected devices among the plurality of types of storage devices perform similar processes as the storage variable processing step~~

wherein said storage common processing step and said storage variable processing step are simultaneously performed using prediction coefficients learned for performing the storage common processing steps and the storage variable processing step at one time.

30. (New) A data processing unit adapted to selectively receive information data from a plurality of types of input devices, comprising:

input interface unit adapted to function as an interface with said plurality of types of input devices;

input common processing unit adapted to perform processing, commonly to said plurality of types of input devices, on the information data received from said plurality of types of input devices via said input interface unit; and

input variable processing unit adapted to perform processing, variably according to the type of input device selected from said plurality of types of input devices, on the information data received from said plurality of types of input devices via said input interface unit,

wherein said input common processing and said input variable processing are simultaneously performed using prediction coefficients learned for performing the input common processing and the input variable processing at one time.

31. (New) A data processing unit according to claim 30, further comprising input device detection unit adapted to detect the type of input device from which the information data is received via said input interface unit, wherein said input common processing unit and said input variable processing unit perform the processing based on a detection result obtained from said input device detection unit.

32. (New) A data processing unit according to claim 30, wherein said input interface unit adapted to function as an interface with each of at least two of said input devices.

33. (New) A data processing unit according to claim 30, further comprising:
output interface unit adapted to function as an interface with a plurality of types of output devices;

output common processing unit adapted to perform processing, commonly to said plurality of types of output devices, on information data to be supplied to said plurality of types of output devices via said output interface unit; and

output variable processing unit adapted to perform processing, variably according to the type of output device selected from said plurality of types of output devices, on the information data supplied to said plurality of types of output devices via said output interface unit.

34. (New) A data processing unit according to claim 33, further comprising output device detection unit adapted to detect the type of output device to which the information data is to be supplied via said output interface unit, wherein said output common processing unit and said output variable processing unit perform the processing based on a detection result obtained from said output device detection unit.

35. (New) A data processing unit according to claim 33, wherein said output interface unit adapted to function as an interface with each of at least two of said output devices.

36. (New) A data processing unit according to claim 33, wherein said input interface unit and said output interface unit are integrated into a single interface.

37. (New) A data processing unit according to claim 30, further comprising:
storage interface unit adapted to function as an interface with a plurality of types of storage devices;

storage common processing unit adapted to perform processing, commonly to said plurality of types of storage devices, on information data received from said plurality of

types of storage devices via said storage interface unit or information data supplied to said plurality of storage devices via said storage interface unit; and

storage variable processing unit adapted to perform processing, variably according to the type of storage device selected from said plurality of types of storage devices, on the information data received from said plurality of types of storage devices via said storage interface unit or the information data supplied to said plurality of types of storage devices via said storage interface unit.

38. (New) A data processing unit according to claim 37, further comprising storage device detection unit adapted to detect the type of storage device from or to which the information data is received or supplied via said storage interface unit, wherein said storage common processing unit and said storage variable processing unit perform the processing based on a detection result obtained from said storage device detection unit.

39. (New) A data processing unit according to claim 37, wherein said storage interface unit adapted to function as an interface with each of at least two of said storage devices.

40. (New) A data processing unit according to claim 37, wherein said input interface unit and said storage interface unit are integrated into one interface.

41. (New) A data processing unit according to claim 33, further comprising: storage interface unit adapted to function as an interface with a plurality of types of storage devices;

storage common processing unit adapted to perform processing, commonly to said plurality of types of storage devices, on information data received from said plurality of types of storage devices via said storage interface unit or information data supplied to said plurality of storage devices via said storage interface unit; and

storage variable processing unit adapted to perform processing, variably according to the type of storage device selected from said plurality of types of storage devices, on the information data received from said plurality of types of storage devices via said storage interface unit or the information data supplied to said plurality of types of storage devices via said storage interface unit.

42. (New) A data processing unit according to claim 41, wherein said input interface unit, said output interface unit, and said storage interface unit are integrated into a single interface.

43. (New) A data processing unit adapted to selectively supply information data to a plurality of types of output devices, comprising:

an output interface unit adapted to function as an interface with said plurality of types of output devices;

an output common processing unit adapted to perform processing, commonly to said plurality of types of output devices, on the information data to be supplied to said plurality of types of output devices via said output interface unit; and

an output variable processing unit adapted to perform processing, variably according to the type of output device selected from said plurality of types of output devices, on

the information data to be supplied to said plurality of types of output devices via said output interface unit,

wherein said output common processing and said output variable processing are simultaneously performed using prediction coefficients learned for performing the output common processing and the output variable processing at one time.

44. (New) A data processing unit according to claim 43, further comprising output device detection unit adapted to detect the type of output device to which the information data is to be supplied via said output interface unit, wherein said output common processing unit and said output variable processing unit perform the processing based on a detection result obtained from said output device detection unit.

45. (New) A data processing unit according to claim 43, wherein said output interface unit adapted to function as an interface with each of at least two of said output devices.

46. (New) A data processing unit according to claim 43, further comprising:
storage interface unit adapted to function as an interface with a plurality of types of storage devices;

storage common processing unit adapted to perform processing, commonly to said plurality of types of storage devices, on information data received from said plurality of types of storage devices via said storage interface unit or information data supplied to said plurality of storage devices via said storage interface unit; and

storage variable processing unit adapted to perform processing, variably according to the type of storage device selected from said plurality of types of storage devices, on the information data received from said plurality of types of storage devices via said storage interface unit or the information data supplied to said plurality of types of storage devices via said storage interface unit.

47. (New) A data processing unit according to claim 46, further comprising storage device detection unit adapted to detect the type of storage device from or to which the information data is received or supplied via said storage interface unit, wherein said storage common processing unit and said storage variable processing unit perform the processing based on a detection result obtained from said storage device detection unit.

48. (New) A data processing unit according to claim 46, wherein said storage interface unit adapted to function as an interface with each of at least two of said storage devices.

49. (New) A data processing unit according to claim 46, wherein said output interface unit and said storage interface unit are integrated into a single interface.

50. (New) A data processing unit adapted to selectively receive and supply information data from and to a plurality of types of storage devices, comprising:

storage interface unit adapted to function as an interface with a plurality of types of storage devices;

storage common processing unit adapted to perform processing, commonly to said plurality of types of storage devices, on the information data received from said plurality of types of storage devices via said storage interface unit or the information data supplied to said plurality of storage devices via said storage interface unit; and

storage variable processing unit adapted to perform processing, variably according to the type of storage device selected from said plurality of types of storage devices, on the information data received from said plurality of types of storage devices via said storage interface unit or information data supplied to said plurality of types of storage devices via said storage interface unit,

wherein said storage common processing and said storage variable processing storage are simultaneously performed using prediction coefficients learned for performing the storage common processing and the storage variable processing at one time.

51. (New) A data processing unit according to claim 50, further comprising storage device detection unit adapted to detect the type of storage device from or to which the information data is received or supplied via said storage interface unit, wherein said storage common processing unit and said storage variable processing unit perform the processing based on a detection result obtained from said storage device detection unit.

52. (New) A data processing unit according to claim 50, wherein said storage interface unit adapted to function as an interface with each of at least two of said storage devices.